UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

92-1126

THE HEIL COMPANY,
Plaintiff-Appellant,

v.

SNYDER INDUSTRIES, INC.,
Defendant-Appellee.

Judgment

ON APPEAL from the United States District Court for the District of Nebraska

in *CASE NO(S).* 88-L-671

This CAUSE having been heard and considered, it is ORDERED and ADJUDGED:

AFFIRMED-IN-PART AND REVERSED-IN-PART.

ENTERED BY ORDER OF THE COURT

DATED FEB 17 1993

/s/ Francis X. Gindhart
Francis X. Gindhart, Clerk

ISSUED AS A MANDATE: May 6, 1993

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

92-1126

THE HEIL COMPANY,
Plaintiff-Appellant,

v.

SNYDER INDUSTRIES, INC.,
Defendant-Appellee.

DECIDED: February 17, 1993

Before MICHEL and LOURIE, *Circuit Judges,* and COWEN, *Senior Circuit Judge.*

MICHEL, *Circuit Judge.*

DECISION

The Heil Company (Heil) appeals from the December 6, 1991 judgment of the United States District Court for the District of Nebraska in Docket No. CV88-L-671, granting priority to Snyder Industries, Inc. (Snyder). We *affirm-in-part* and *reverse-in-part.*

DISCUSSION

Under 35 U.S.C. § 146 (1988), "[a]ny party to an interference dissatisfied with the decision of the Board . . . on the interference may have remedy by civil action . . . unless he has appealed to the United States Court of Appeals for the Federal Circuit, and such appeal is pending or has been decided." Thus, a dissatisfied party initially has the choice of either (a) appealing the Board's decision

to this court, or (b) filing an interference suit in a federal district court. A party choosing option (b) may appeal the decision of the district court to this court. 28 U.S.C. § 1295(a)(4)(C) (1988). Thus, in an appeal such as the instant one, we review the decision of the district court, not that of the Board,[1] and we limit our review here accordingly.

Heil, the junior party applicant, first argues on appeal that the district court's interpretation of the interference count (Count) as requiring utility as a *refuse* container was erroneous. We agree. The Count defines the invention only as "a portable molded *container*" (emphasis added). [L]imitations not clearly included in a count should not be read into it." *Newkirk v. Lulejian*, 825 F.2d 1581, 1583, 3 USPQ2d 1793, 1795 (Fed. Cir. 1987). Here, the Count was limited merely to a "container," without any reference to use as a *refuse* container. The court thus erred in reading such a limitation into the Count.

Snyder, the senior party patentee, asserts that when a count does not state for what purpose an invention will be used, "the courts look to the record" to determine the intended use. However, the courts look beyond the count only "when there are ambiguities inherent in the claim language or obvious from arguments of counsel." *DeGeorge v. Bernier*, 768 F.2d 1318, 1322, 226 USPQ 758, 761 (Fed. Cir. 1985). Furthermore, when such ambiguities exist, the courts must look "to the specification of the patent from which the copied claim came," *id.; see also In re Spina*, 975 F.2d 854, 856, 24 USPQ2d 1142, 1144 (Fed. Cir. 1992) (quoting *DeGeorge*)—here, Snyder's specification.

Interpretation of a count is a question of law, which we review *de novo*. *DeGeorge*, 768 F.2d at 1321, 226 USPQ

[1] Indeed, "[i]n such suits the record in the Patent and Trademark Office shall be admitted [in the district court] on motion of either party . . . [and such evidence] when admitted shall have the same effect as if originally taken and produced in the suit." 35 U.S.C. § 146.

at 760. We do not believe the unqualified term "container" is ambiguous. However, even assuming that it is, Snyder's specification describes the invention as "relat[ing] generally to containers and, in particular, to a molded, wheeled container with a hinged lid. Such containers, particularly in larger sizes on the order of 90 gallons, are particularly well suited for handling refuse." Joint Appendix at 2680. Thus, Snyder's patent, and therefore the Count, do not limit the invention to use as only a refuse container.

Consequently, we conclude that Heil's second argument—that the district court erred in requiring testing of the invention as a refuse container under conditions of actual use in order to establish a reduction to practice—also has merit. Reduction to practice is a question of law, *D.L. Auld Co. v. Chroma Graphics,* 714 F.2d 1144, 1151, 219 USPQ 13, 18 (Fed. Cir. 1983), and therefore is reviewed *de novo.* In order for there to be a reduction to practice, "the invention must have been 'sufficiently tested to demonstrate that it will work for its intended purpose.' " *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 861, 226 USPQ 402, 407 (Fed. Cir. 1985) (quoting *General Electric Co. v. United States,* 654 F.2d 55, 60 n.8, 228 Ct. Cl. 192, 201 n.8, 211 USPQ 867, 872 n.8 (1981)), *cert. denied,* 475 U.S. 1016 (1986). The invention in this case was intended for use as a portable, lidded container with a hinge-handle construction and not only as a refuse container. Thus, the district court erred in requiring Heil to have tested the invention under "actual use" conditions as a refuse container.

Furthermore, an invention need not be tested "in a commercially satisfactory stage of development" in order to prove a reduction to practice. *Id.* (quoting *Barmag Barmer Maschinefabrik AG v. Murata Mach., Ltd.*, 731 F.2d 831, 838, 221 USPQ 561, 567 (Fed. Cir. 1984)). Consequently, the test of the May, 1981 mock up container (mock up), during which the mock up "was maneuvered around by grasping its hinge rod-handle, and its lid was

apparently opened and closed," *Heil Co. v. Snyder Indus., Inc.*, No. CV88-L-671, slip op. at 8 (D. Neb. Dec. 6, 1991) (quoting Board's decision at 5-6), was sufficient.

Thus, we conclude that the mock up had proven utility as a portable, lidded container and that the testing was adequate to demonstrate that the hinge-handle "worked for its intended purpose." *Newkirk*, 825 F.2d at 1582, 3 USPQ2d at 1794. Molding of the body of such containers was old in the art. Accordingly, we hold that the mock up was a reduction to practice of the invention that corresponded to the Count in all essential respects, even though the mock up did not represent a commercially marketable refuse container.

Heil further contends on appeal that the district court erred in determining "that Heil's mock up put Heil in sufficient possession of the commercially preferred rotationally molded embodiment Heil offered for sale [in its September 9, 1981 bid to the County of Sacramento (Sacramento bid)] to raise an 'on sale' bar." Whether an on sale bar arises is a question of law based on underlying questions of fact. *Intel Corp. v. U.S. Int'l Trade Comm'n*, 946 F.2d 821, 829, 20 USPQ2d 1161, 1169 (Fed. Cir. 1991). In *UMC Electronics Co. v. United States*, 816 F.2d 647, 656, 2 USPQ2d 1465, 1472 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1025 (1988), this court set forth the factors to be considered and the respective burdens of proof involved in determining whether a particular activity constitutes an on sale bar:

> [T]he challenger has the burden of proving that there was a definite sale or offer to sell more than one year before the application for the subject patent, and that the subject matter of the sale or offer to sell fully anticipated the claimed invention or would have rendered the claimed invention obvious by its addition to the prior art. If these facts are established, the patent owner

> is called upon to come forward with an explanation of the circumstances surrounding what would otherwise appear to be commercialization outside the grace period.

The *UMC* court recognized two exemplary circumstances that would preclude an on sale bar: (1) if the inventor had not progressed "far beyond" a mere conception; or (2) if the sale was only part of experimental testing of the invention. *Id.*

The district court stated that it was undisputed that, with the Sacramento bid at a competitive price, Heil made an offer to sell 28,000 refuse containers to the City of Sacramento. The district court further found that the mock up, although not a reduction to practice, represented the subject invention beyond "mere conception," embodying "the hinge-handle construction, the one element of the invention that was not yet part of the prior art." *Heil,* slip op. at 14. Because we hold that the mock up was an actual reduction to practice and, therefore met an even more rigorous test than "fully anticipat[ing] the claimed invention or . . . render[ing] the claimed invention obvious by its addition to the prior art," *UMC,* 816 F.2d at 657, 2 USPQ2d at 1472, we conclude that the district court's findings were not clearly erroneous, and accordingly that the challenger—Snyder—fulfilled its burden. Moreover, the district court erred in requiring the feature of rotational molding of the hinge-handle, even though it was a limitation in a dependent claim in Snyder's patent.

In addition, the finding that Heil was not merely offering a concept of the invention for sale inheres in the district court's finding that the mock up was more than a "mere concept," and our holding that there was a reduction to practice of the invention described in the Count confirms that finding. Furthermore, the district court found that Heil "intended to perform the contract" with Sacramento if it won the bid, and that it backed up that

intent with a $300,000 bid bond. *Heil,* slip op. at 14. Because of this "level of commitment to th[e] bid," in combination with the other factors, the district court concluded that the Sacramento bid constituted an on sale bar under 35 U.S.C. § 102(b) (1988). Because Heil's intent to fulfill the contract if awarded (and thereby earn a profit) and the size of the bid bond could together certainly show that Heil had a commercial motive in making this offer to sell, we conclude that these district court findings, which establish that Heil did not rebut the presumption of an on sale bar created by the above findings, are also not clearly erroneous.[2]

CONCLUSION

We hold that Heil's May, 1981 mock up constituted a reduction to practice of its invention, thereby rendering Snyder's patent invalid under 35 U.S.C. § 102(g) (1988). We hold further that the invention is unpatentable to Heil, as it was on sale more than one year prior to the date of Heil's patent application. 35 U.S.C. § 102(b). Accordingly, the district court's judgment is affirmed-in-part and reversed-in-part.

COSTS

Each party shall bear its own costs.

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[2] Because we hold that Heil was precluded from obtaining a patent for its invention because of an on sale bar and that Heil's mock up was a reduction to practice of the invention of the Count, we need not address the issues raised by the parties in this appeal that pertain to Heil's prototype containers and the district court's findings and conclusions with respect thereto.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

92-1126

THE HEIL COMPANY,
Plaintiff-Appellant,

v.

SNYDER INDUSTRIES, INC.,
Defendant/Cross-Appellant.

ORDER

A combined petition for rehearing and suggestion for rehearing in banc having been filed by the APPELLEE, and a response thereto having been invited by the court and filed by the APPELLANT, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the suggestion for rehearing in banc and response having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED, and it is further

ORDERED that the suggestion for rehearing in banc be, and the same hereby is, DECLINED.

The mandate of the court will issue on May 3, 1993.

FOR THE COURT,
FRANCIS X. GINDHART, CLERK

Dated: April 26, 1993

By /s/Diane M. Frye
Diane M. Frye
Chief Deputy Clerk

cc: GEORGE P. MCANDREWS
ALAN I. CANTOR

HEIL CO V SNYDER IND INC, 92-1126
(DCT - 88-L-671)

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA

CV88-L-671

THE HEIL CO.,

Plaintiff,

vs.

SNYDER INDUSTRIES, INC.,

Defendant.

JUDGMENT

IT IS HEREBY ORDERED the Board of Patent Appeals and Interferences' decision granting priority to Snyder Industries, Inc. is affirmed.

Dated December 6, 1991.

BY THE COURT

/s/ Warren K. Urbom
United States Senior District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA

CV88-L-671

THE HEIL CO.,

Plaintiff,

vs.

SNYDER INDUSTRIES, INC.,

Defendant.

MEMORANDUM OF DECISION

This action was brought by The Heil Company against Snyder Industries under 35 U.S.C. § 146. The plaintiff seeks reversal of the Board of Patent Appeals and Interferences' decision in which the Board: (1) awarded priority of invention of the Interference Count to the defendant's assignors, Larry Snyder and Richard Florer; and (2) held that an on-sale bar rendered the Interference Count unpatentable to the plaintiff's assignor. The plaintiff asserts the Board's decision with respect to both (1) and (2) above were erroneous. Jurisdiction is proper pursuant to 35 U.S.C. § 146 and 28 U.S.C. §§ 1391(b)-(c).

Refuse containers are the subject matter of this case. More specifically, the issues revolve around the right to hold the patent for a molded plastic refuse container that utilizes a molded "hinge-handle" design, thereby eliminating the need for metal hardware to attach the lid to the body of the container. It is conceded that Heil's assignor, Fred Smith, was the first to conceive of the invention, presumably prior to August 1980. (Filing 31). However, Snyder, having conceived of the invention no later than July 20, 1981, was the first to file a patent application relating to the invention. Smith filed its patent application on September 22, 1982.

Snyder was awarded a patent for the invention on May 29, 1984. Smith subsequently filed an interference action pursuant to 35 U.S.C. § 135 in which Snyder was adjudged to be the senior party and Smith the junior party. The Board of Patent Appeals and Interferences ("Board"), following the submission of oral testimony, documentary exhibits, and briefing by counsel, upheld the validity of Snyder's patent. This action by Heil, as Smith's assignee, followed.

A bench trial was held on July 9-10, 1990. Evidentiary issues were briefed and resolved during the months following trial and the case is finally ready for disposition. The pretrial order, filing 31, specifies three controverted issues to be resolved:

1. Whether Heil reduced the subject matter of the Count to practice prior to Snyder's constructive reduction to practice date of February 22, 1982.

2. Assuming, arguendo, that Heil's reduction to practice occurred after February 22, 1982, whether Heil proceeded with diligence from a date just prior to July 20, 1981, to the subsequent reduction to practice.

3. Whether the subject matter of the Count is unpatentable to Heil under the "on sale" provisions of 35 U.S.C. § 102(b).

I. BACKGROUND OF THE CASE

Fred Smith, Heil's assignor, contracted with Heil in 1979 for consultation services regarding solid waste handling. At that time, "automated systems" involving a refuse container that could be picked up and dumped into a refuse truck without the driver having to leave the cab were new to Heil. Smith believed a more cost effective container for use with the automated systems could be manufactured using rotomolding techniques. The current model required manual installation of metal hardware including hinges to affix the lid to the container body. The idea was conceived

that a container could be fashioned that utilized molded hinges, thereby eliminating hardware installation and creating cost savings for the company. (Tr. at 22-26).

On August 25-26, 1980, a meeting was held to discuss the possibility of developing a new refuse container. This "refuse container value analysis meeting" was attended by Smith and several Heil employees. (PX-1). As part of that meeting, Smith prepared sketches of the proposed container. (PX-1). In addition, a market survey of the desirability of such a product was ordered and yielded favorable results. (PX-2). Consequently, on January 8, 1981, Heil's Vice President of Product Planning and Development, George Rea, directed Smith to "go ahead" with the development of the new product. (PX-3).

In March 1981, Smith provided more detailed drawings of the new container. A "mock-up" of the product was ordered from Valley Pattern & Mold Co., Inc. on March 10, 1981. (PX-15). The mock-up was completed in May 1981. (PX-21). Upon examination of the mock-up, it was noted that wheel wells should be added for aesthetic purposes and "radii" incorporated in the sidewall construction to prevent distortion or "buckling." (Tr. at 35). More drawings were made in August 1981. Heil's plant manager, Gerry Francisco, instructed that a purchase order be issued to proceed with the manufacture of a mold in accordance with the latest drawings.

Snyder was, during this time, also anticipating a change in container design to eliminate metal hardware. In a memorandum reporting a meeting on July 10, 1981, it was reported that a new design incorporating a hinge-handle would be drawn and submitted for approval. (DX-7). A prototype 90-gallon container was completed on July 20, 1981. (DX-10, DX-11, DX-12). Final drawings and dimensioning were finished on July 23, 1981. (DX-12).

On or about September 9, 1981, Heil prepared and submitted a bid to supply 28,000 90-gallon containers to the

County of Sacramento, California. Among other things, the container specifications called for a container that was round in the area of the clasping arm and fitted with a watertight lid that did not utilize a metal hinge. (PX-19, DX-30). In addition, test criteria and procedures intended to be used were to be specified in the bid. Bid specifications established that delivery of the containers would begin 160-180 days after receipt of the order.

Snyder was also making efforts to market its newly designed container. On September 11, 1981, Snyder submitted a bid for 90-gallon containers to Sacramento. (DX-15). Subsequent offers were made to supply containers to Albany, Georgia, Columbus, Ohio, Phoenix, Arizona, and Atlanta, Georgia. (DX-16, DX-18 to DX-21).

On September 14, 1981, Heil briefly halted its work on the new design pending the possibility of its purchasing a competitor company, Turnkey. However, three days later, Rea recommended the mold that had been ordered be completed, regardless of the outcome with Turnkey, since Heil "had spent 80% of the mold cost already." An order to "go ahead" with the completion of the mold was given on October 7, 1981. (DX-74).

The mold was actually received by Heil in November 1981. Several castings were made and these prototype containers examined for structural soundness and aesthetic quality. The mold did not provide for wheel wells and plans were made for modifying the mold to accomplish that alteration. In addition, alterations were undertaken to remedy "buckling" of the sides. (Tr. at 37-40, PX-4).

On November 13, 1981, Smith was advised by memorandum of the perceived problems and asked to personally inspect the containers. (PX-5, PX-37). Such an inspection occurred on December 3-4, 1981, at which time Smith identified several mold errors which precipitated the problems. According to a December 7, 1981, memorandum from Rea, Smith and Francisco "feel we have all the answers now.

. . . Gerry estimates that we should have these changes made and have the mold back within two weeks. So at that time we will be able to make up some containers, put a few out in the field, get samples in Sales' hands, etc." (PX-6, PX-38).

Some testing of the new container was allegedly undertaken during November and December. However, the exact nature and extent of the testing is a disputed issue and will be discussed later as it relates to reduction to practice.

On January 6, 1982, Heil offered for sale 1000 90-gallon containers. The offer was accepted by the Pleasanton Garbage Service in Pleasanton, California, and a purchase order prepared on February 22, 1982. (PX-44, PX-45, PX-46).

Mold changes were still being made by Heil. A handwritten note from Rea to Francisco, dated January 15, 1982, detailed possible modifications of the molds. In addition, Rea noted his "mind wasn't made up" as to whether the container should incorporate two or three hinges. (PX-7). A subsequent memorandum, dated January 21, 1982, was accompanied by additional drawings and indicated changes in the proposed dimensions as well as the use of two rather than three hinges. (PX-8 and PX-9).

On February 19, 1982, Rea again wrote to Smith, referencing a telephone conversation of that day and expressing urgency in completing the 90-gallon container drawings. Francisco was to modify the 90-gallon mold and run some sample containers on February 20-22, 1982. Rea requested that Smith "proceed *as quickly as possible*" in completing the drawings if the latest modifications were successful. (PX-10 (emphasis in original)).

Snyder filed its patent application on February 22, 1982, and the patent granted on May 29, 1984.

II. STANDARD OF REVIEW

Even though an action under section 146 involves a new trial, the district court is not entitled to make a de novo review of the case as it was presented to the Board. As established by the Supreme Court, the Board's decision, as it relates to questions of priority of invention, is entitled to a presumption of correctness and regularity. The decision regarding priority "must be accepted as controlling upon that question of fact . . . unless the contrary is established by testimony which in character and amount carries thorough conviction." *Morgan v. Daniels,* 153 U.S. 120, 125 (1894).

This standard has remained unchanged, *see, e.g., Piher S.A. v. CTS Corp.,* 664 F.2d 122, 126 (7th Cir. 1981); *Standard Oil Co. (Indiana) v. Montedison, S.p.A.,* 664 F.2d 356, 361-62 (3d Cir. 1981), *cert. denied,* 456 U.S. 915 (1982), and is equivalent to the "clearly erroneous" standard. *Kirschke v. Lamar,* 426 F.2d 870, 873 n.3 (8th Cir. 1970) (clearly erroneous standard of Rule 52(a) is applicable to section 146 actions).

The plaintiff asserts that the admission of new evidence warrants application of a "preponderance of the evidence" standard. While it is true that parties to a section 146 proceeding may introduce evidence that has not been reviewed by the Board, thereby necessitating a *de novo* review of that particular evidence, I do not believe that standard applies to the entire case. Rather, this limited *de novo* review permits the district court to adjudge the credibility and weight to be afforded this new evidence. Once the new evidence has been appropriately weighted, it must be considered in conjunction with the record from the Board proceedings to determine whether the Board's decision was clearly in error. "The 'thorough conviction' determination is to be made on the basis of the entire record before the district court, including both the record that was before the Board and any additional evidence

admitted by the court." *Velsicol Chemical Corp. v. Monsanto Co.*, 579 F.2d 1038, 1042 (7th Cir. 1978). *See Standard Oil*, 664 F.2d at 361-62 (clearly erroneous standard applied to all evidence including expert testimony heard by district court). Absent such a finding of clear error, the Board's ruling cannot be overturned.

I am unpersuaded by the plaintiff's apparent argument that the introduction of new evidence defeats the presumption of correctness otherwise attributable to the Board's decision. The cases cited by the plaintiff, *Fregeau v. Mossinghoff*, 776 F.2d 1034 (Fed. Cir. 1985), *Burlington Industries v. Quigg*, 822 F.2d 1581 (Fed. Cir. 1987), and *Gould v. Quigg*, 822 F.2d 1074 (Fed. Cir. 1987), involve actions under 35 U.S.C. § 145 rather than section 146. Furthermore, they do not indicate a departure from the Supreme court rule established in *Morgan v. Daniels* when new evidence has been admitted. Rather, they state that de novo fact finding is to be made by the district court when new evidence is presented. This rule seems to state the obvious in that the initial review of the newly admitted evidence must be *de novo* by definition. If no other judicial entity has reviewed the evidence, there can be no other review. These cases do not, however, instruct that a lesser burden of proof is necessary to warrant reversal of the Board's decision. For example, the Federal Circuit in *Gould v. Quigg* supported its statement regarding the propriety of a *de novo* fact finding of new evidence with the language from *Morgan v. Daniels* establishing the "thorough conviction" standard of review. *Gould*, 822 F.2d at 1077 (district court relied upon newly admitted expert testimony in setting aside the Board's decision on patentability).

Accordingly, the documentary and parol evidence that has been newly admitted by both parties will be subjected to a *de novo* review by the court. However, in order to prevail, the plaintiff bears the burden of showing the Board's decision regarding priority to be clearly erroneous. As discussed in the remaining sections of this memoran-

dum, the plaintiff does not satisfy that burden and the Board's decision will be affirmed.

III. REDUCTION TO PRACTICE

Heil's inventor was admittedly the first to "conceive" the idea of the hinge-handle container involved in this suit. Smith was therefore the prior inventor, and entitled to priority, if Heil proved by a preponderance of the evidence that Heil was the first to reduce the invention to practice. 35 U.S.C. § 102(g). The Board determined that Heil had not adequately tested the "mock-up" container to prove reduction to practice. To counter this finding, Heil presented, over objection by Snyder, new evidence at trial concerning testing of the prototype containers during November and December 1981.

In determining whether a reduction to practice occurred, the general rule is that the invention must have been demonstrated to have "actually worked for its intended purpose." *Newkirk v. Lulejian*, 825 F.2d 1581, 1582 (Fed. Cir. 1987). Such demonstration requires sufficient testing to show workability. *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 861 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1016 (1986). However, a demonstration of workability may be achieved without testing where the inventions are "so simple and their purpose so obvious that their complete construction is sufficient to demonstrate workability." *Eastern Rotorcraft v. United States*, 384 F.2d 429, 431 (Ct. Cl. 1967) (en *banc*) (simplicity of cargo tie down eliminated need to test with cargo in transit).

Reduction to practice does not, however, require that the invention be in a "commercially satisfactory stage of development" at the time of testing. *Barmag Barmer Maschinenfabrik AG v. Murata Mach., Ltd.*, 731 F.2d 831, 838 (Fed. Cir. 1984). Accordingly, in *Barmag Barmer*, a newly invented machine was effectively reduced to practice when it had successfully produced synthetic yarn even though the product was inferior. *Id.* at 839.

The plaintiff asserts that, because the Interference Count does not specify an intended use, "evidence demonstrating substantial utility for *any* purpose is enough to show reduction to practice." *Shurie v. Richmond*, 699 F.2d 1156, 1159 (Fed. Cir. 1983); *accord Gordon v. Hubbard*, 347 F.2d 1001, 1006 (C.C.P.A. 1965). Accordingly, the argument goes, the hinge-handle container was reduced to practice once it was shown, or was apparent, that the embodiment possessed all elements of the count and would work as a "container;" workability as a refuse container was not required to meet the legal standard for reduction to practice.

I cannot agree with this conclusion. The long-established rule requiring a showing of utility for the invention's intended purpose applies "even if the 'intended purpose' is not explicitly set forth in the counts of the interference." *DSL Dynamic Sciences Ltd. v. Union Switch & Signal, Inc.*, 928 F.2d 1122, 1125 (Fed. Cir. 1991). The court in *DSL* cited two cases, *Elmore v. Schmitt*, 278 F.2d 510 (C.C.P.A. 1960) and *Burns v. Curtis*, 172 F.2d 588 (C.C.P.A. 1949), as illustrative of the need to divine an intended purpose where the count was silent. In *Elmore*, the court held that reduction to practice had not occurred where testing of a binary counter failed to duplicate actual working conditions in any practical use even though the interference count had not indicated any intended purpose. *Elmore*, 278 F.2d at 513. Similarly, the court in *Burns* concluded the newly invented liquid pump assembly was "primarily designed for feeding fuel to airplane engines, although the counts are not expressly limited to such use." *Burns*, 172 F.2d at 589. Consequently, testing to show that a liquid pump assembly would "operate successfully in service on an airplane" was necessary to establish reduction to practice. *Id.* at 591.

In cases where the interference count is silent as to an intended purpose, the court may consider statements contained in the patent applications and specifications for guidance. *Gordon v. Hubbard*, 347 F.2d 1001, 1004-05 & n.4 (C.C.P.A. 1965). *See also Landon v. Ginzton*, 214 F.2d

160, 164 (C.C.P.A. 1954) (in interference proceeding, board may consider not only elements recited in the counts but also statements in the specification "which shed light upon the purpose and intentions" as to the invention).

Heil correctly asserts that the count does not specify any particular intended purpose. Rather, the count merely describes a "container." However, Smith's specification establishes that the invention was intended primarily as a refuse container. (DX-55). In particular, every section of the specification makes reference to a "plastic refuse container"; the specification contains a minimum of 29 such references. The very first sentence in the specification states: "This invention relates to plastic refuse containers and, more particularly, to plastic refuse containers assembled by retailers for sale." Furthermore, every numbered claim in the specification refers to a "plastic refuse container."

In light of these indicia, the Board correctly required testing to show operability as a refuse container before the invention could be reduced to practice. Based upon the evidence before it, the Board concluded that such a showing had not been made. Accordingly, priority was granted to Snyder as it established a "constructive reduction to practice" on the date it filed its patent application. The question to be considered now is whether the new evidence submitted by Heil is sufficient to show that testing of the mock-up or prototype containers was sufficient to establish operability as a refuse container.

In granting priority to Snyder, the Board concluded:

> "[T]he record fails to establish that the Smith mock-up was sufficiently tested for utility under conditions of actual use to constitute a complete reduction to practice. . . . Clearly, the subject invention was designed to ultimately serve as a refuse container. While the 'mock-up' evidently was maneuvered around by grasping its hinge

> rod-handle, and its lid was apparently opened and closed, there is no evidence that it was ever actually tested to determine whether it could be filled with refuse and subsequently inverted to empty the refuse out."

(Decision at 5-6). No evidence has been submitted to counter this holding regarding testing of the mock-up container.

However, much of the plaintiff's case at trial was directed at establishing that adequate testing had been conducted with the prototype containers. Briefly, Heil's witnesses testified that during November-December 1981, the prototype containers had been subjected to testing sufficient to show their operability. Smith recalled "checking the balance of the container" and wheeling it about with "a little bit of weight in it." (Tr. at 130-31). In addition, Smith and Francisco both testified they had taken a prototype container to another shop in Phoenix, "Bingman's," and observed it being grasped, lifted, inverted, and lowered by an automatic lift device. (Tr. at 133-36, 153-54, 190-93). Francisco further testified he conducted similar tests with prototype containers on three occasions prior to mid-January 1982. (Tr. at 191-92).

Evaluation of the containers under field conditions was begun with the placement of a container at a residence next door to the Heil plant. Other containers were issued to the City of Phoenix for use on refuse routes. (Tr. at 190, 193-94).

In opposition the defendant is quick to point out that the new testimony is "contradicted by evidence in the Interference Record, including the earlier testimony of Smith himself . . . ; and it is entirely uncorroborated." (Defendant's Post-Trial Brief at 20-21). I am inclined to agree as to both contentions.

As to the need for corroboration of the inventor's and his assignee's testimony regarding reduction to practice:

> "[I]t is well established that the burden of proof of an inventor's alleged conception and reduction to practice is a heavy one requiring full corroboration by other than the inventor's own self-serving testimony or records. In fact, this court has held that oral recollections of long past events, unsupported by contemporaneous documentary evidence, are insufficient to meet the strict burden of proof required."

Lockheed Aircraft Corp. v. United States, 553 F.2d 69, 74 (Ct. Cl. 1977) (oral testimony of the inventor was sufficiently corroborated by documentary evidence to establish conception and reasonable diligence). This rule recognizes that "a party in an interference proceeding is rarely in a position to present evidence contradicting his opponent's testimony as to his acts of invention." *Velsicol Chemical Corp. v. Monsanto Co.*, 579 F.2d 1038, 1048 (7th Cir. 1978). Consequently corroboration is required to show that "the inventor actually produced the product and knew it would work, by proof that could not have been fabricated or falsified." Id. at 1048-49 (*quoting Gianladis v. Kass*, 324 F.2d 322, 325 (C.C.P.A. 1963)).

As discussed earlier, the trial court is entitled to make a *de novo* review of the newly admitted evidence. It could, therefore, be argued that corroboration of new testimony is not required. However, part of the duty of the fact finder is to judge the credibility of the evidence adduced at trial. Accordingly, the presence or absence of corroborating evidence is a factor in weighing the evidence, just as are the perceived truthfulness of witnesses and the reliability of sources.

Smith's testimony regarding in-plant manipulation of the prototype container is completely uncorroborated; neither documentary nor independent parol evidence has been produced to bolster that evidence. Heil has also failed to present independent evidence, either documentary or parol, of

the testing that allegedly occurred at Bingman's shop. Only oral testimony by interested parties exists.

Apparent inconsistencies also exist in the testimony regarding testing at Bingman's shop. Smith testified that he observed only one test at Bingman's and that test occurred in early December 1981, with an empty prototype container. (Tr. at 136, 153). However, I find it significant that a memorandum of December 7, 1981, reported Smith's trip to Phoenix but failed to note any activity that could be construed as testing. The memorandum stated:

> "Gerry Francisco called me 12/4/81 and advised that the containers that we slowed the cooling cycle down on came out looking real good.
>
> Fred Smith was in Phoenix 12/3 & 12/4 and went over the molds, the axle-wheel problem, etc. Fred found some mold errors which precipitated some of the problems.
>
> He and Gerry have also come up with some changes in the wheel area to improve the appearance in that area.
>
> They feel we have all the answers now. There will have to be some mold changes made—Gerry estimates that we should have these changes made and have the mold back within two weeks.
>
> So at that time we will be able to make up some containers, put a few out in the field, get samples in Sales' hands, etc."

(PX-6).

The only possible corroboration of Smith's testimony regarding testing came from Francisco. He testified at trial that no written reports existed regarding such testing but that he observed shop tests at Bingman's on three or four occasions. In corroboration of Smith's testimony, Francisco stated he accompanied Smith to Bingman's on one occasion

at which time they ran an empty prototype container through a complete cycle on the automated machine. (Tr. at 206-08.) However, this testimony, while consistent with Smith's earlier testimony, contradicted the witness' own deposition testimony at which he omitted any reference to testing an empty container at Bingman's. When asked to explain the earlier omission, Francisco merely stated the [sic] he had forgotten about those test. (Tr. at 208.)

Heil failed to produce any other witness, either from Heil or Bingman's, to corroborate Smith's testimony. Rea stated he did not observe any tests at Bingman's and, although a foreman at Bingman's was allegedly present during some of the testing, Heil did not adduce testimony from any other witness regarding testing. (Tr. at 83, 134-35, 207). The absence of additional witnesses is significant given the Board's indication that evidence of testing was critical to show Heil had reduced the invention to practice before Snyder filed its patent application.

Furthermore, inconsistencies exist in the evidence regarding alleged field testing of the containers. Francisco testified at trial that "test containers" were given to neighbors of the Heil plant in Phoenix in November or December 1981. One of those neighbors, Sharon Goolsby, emphatically testified in her deposition that the test container had only *two* hinges. Upon further questioning, she noted the container lid sometimes closed in a "cockeyed" position thereby leaving the container partially open and she speculated this problem was caused by the absence of a center hinge. (Goolsby Deposition at 38-39, 45).

In contrast, the prototype containers, about which Heil is seeking to establish reduction to practice, undeniably had *three* hinges. (PX-71). At trial, Francisco testified that Heil did not manufacture containers with *two* hinges until 1988.

Furthermore, on January 21, 1982, Rea noted in a memorandum to Francisco noting design changes including using "two hinges rather than 3 [sic]." (PX-8).

In short, I find the testimony adduced by Heil in support of its case for reduction to practice to lack credibility. The testimony is generally uncorroborated and inconsistencies have been revealed. In addition, Smith's failure to present any of this evidence during the interference proceedings is difficult to explain. These considerations, taken together, preclude me from finding the Board's decision to be in error.

I must note that the parties argued strenuously as to whether the "buckling" of the prototype sides precluded that container from embodying every element of the claimed invention. However, I do not find it necessary to decide that issue, as Heil failed to prove it had performed sufficient testing to have reduced the invention to practice regardless of the degree or significance of the buckling problem.

IV. DUE DILIGENCE

The second controverted issue challenges the Board's finding that Smith failed to exercise "due diligence" in developing his invention from a date just prior to July 20, 1981, to the subsequent reduction to practice. The Board held:

> "In our opinion, the evidence proffered by Smith falls far short of that which is necessary to establish reasonable diligence throughout the critical period. The entire critical period must be accounted for . . . [and] 'reasonably continuous activity' during the critical period must be shown which is directly related to actual or constructive reduction to practice of the invention in issue. Gaps of no activity must be explained and legally

> sufficient justification of inactivity established.
> . . .
>
> As pointed out by Snyder, an analysis of Smith's case for diligence reveals several distinct gaps or lulls in proven activity during the critical period of concern here. Most notably, there is a first lull in proven activity of about 2 1/2 months duration right at the beginning of the critical period between the receipt by Heil of a quote on a prototype mold (May 28, 1981) and the placement of an order for the mold (August 12, 1981). A 2 1/2-month aggregate of time devoid of any specific proven activity or excuse for inactivity is alone fatal to Smith's case for diligence. Additionally, there is an unexplained gap in activity between the making of an initial batch of prototype containers using the prototype mold (November 5, 1981) and the making of a so-called 'successful container' using an improved mold (December 7, 1981), a gap in activity of about one month. Moreover, there is very little evidence of any relevant activity, or excuse for inactivity, to account for the balance of the critical period, i.e., from December 7, 1981 through September 22, 1982, an apparent lull in activity of about nine months duration."

(Decision at 13-14 (citations omitted)).

After a *de novo* review of the new evidence adduced at trial, I find no error in the Board's decision as to Smith's failure to exercise due diligence. Although evidence of activity during November-December 1981, was presented at trial, Heil has offered no new evidence explaining the initial gap of 2 1/2 months. As noted by the Board, this gap is alone fatal to Heil's case. Consequently, whether due diligence was exercised during the latter gaps does not change the outcome, and my finding that Heil's new

evidence regarding prototype testing during that period lacked credibility is not dispositive of the issue.

V. "ON SALE" BAR

Furthermore, even if Heil had established priority by its timely reduction to practice or due diligence, the invention is unpatentable to Heil. Pursuant to 35 U.S.C. § 102(b), a duly filed application for a patent shall be granted unless "the invention was . . . on sale in this country, more than one year prior to the date of the application for patent in the United States." At least four identifiable policies underlie the on-sale bar:

> "First, there is a policy against removing inventions from the public which the public has justifiably come to believe are freely available to all as a consequence of prolonged sales activity. Next, there is a policy favoring prompt and widespread disclosure of new inventions to the public. The inventor is forced to file promptly or risk possible forfeiture of his invention rights due to third party sales. A third policy is to prevent the inventor from commercially exploiting the exclusivity of his invention substantially beyond the statutorily authorized 17-year period. The "on sale" bar forces the inventor to choose between seeking patent protection promptly following sales activity or taking his chances with his competitors without the benefit of patent protection. The fourth and final identifiable policy is to give the inventor a reasonable amount of time following sales activity (set by statute as 1 year) to determine whether a patent is a worthwhile investment. This benefits the public because it tends to minimize the fining [sic] of inventions of only marginal public interest. The 1-year grace period provided by Congress in § 102(b) represents a balance between these competing interests."

General Elec. Co. v. United States, 654 F.2d 55, 61 (Ct. Cl. 1981) (citations omitted).

In this case, the critical date as to Smith's application is September 22, 1981, one year prior to the filing of his patent application on September 22, 1982. It is undisputed that Heil submitted a bid to the City of Sacramento, California, on September 10, 1981, prior to the critical date, for the sale of 28,000 refuse containers. What is disputed is whether that offer to sell is sufficient to constitute a bar under section 102(b).

The Federal Circuit articulated the standard to be applied in determining whether an on-sale bar had occurred in *UMC Electronics Co. v. United States*, 816 F.2d 647, 657 (Fed. Cir. 1987). In *UMC*, the appellant sought to recover compensation from the United States for the Navy's use of its patented invention, an aviation counting accelerometer (ACA). UMC had offered to sell the Navy more than $1.6 million worth of its improved ACA on July 27, 1967. Demonstrations were conducted for the Navy on August 9, 1967. However, the patent application for this device was not filed until August 1, 1968, more than one year after the offer to sell. The court, reversing the claims court's decision, held that the patent which had been issued was invalid as barred by the prior offer to sell, pursuant to section 102(b).

The court in *UMC* focused on "[w]hether a reduction to practice was a requirement of the on-sale bar of 35 U.S.C. § 102(b)." *Id.* at 652. After analyzing prior cases dealing with the issue, the court concluded that, although reduction to practice was a factor to be considered, it was not a dispositive factor in determining whether an on-sale bar existed. *Id.* at 656. In addition, the court noted:

> "We hasten to add, however, that we do not intend to sanction attacks on patents on the ground that the inventor or another offered for sale, before the critical date, the mere concept

> of the invention. Nor should inventors be forced to rush into the Patent and Trademark Office prematurely. On the other hand, we reject UMC's position that as a matter of law no on-sale bar is possible unless the claimed invention has been reduced to practice in the interference sense."

Id.

In place of a rigid rule, the court noted that "[a]ll of the circumstances surrounding the sale or offer to sell, including the stage of development of the invention and the nature of the invention, must be considered." *Id.* To that end, the challenger must show that there was a definite offer to sell and that the item offered "fully anticipated the claimed invention or would have rendered the claimed invention obvious by its addition to the prior art." *Id.* No bar will be found where the inventor was still working toward development of the invention or merely offered a concept of the invention for sale. Neither will participation in experimental testing constitute a bar. *Id.* at 657.

In this case, the facts support a finding of an on-sale bar. Heil offered to sell containers more than one year before its patent application was filed. The development of the subject invention had advanced beyond "mere conception" at the time of the offer to sell. The mock-up container embodied the hinge-handle construction, the one element of the invention that was not yet part of the prior art. In addition, testimony presented before the Board revealed that at the time of the bid Heil supplied the City of Sacramento a bid bond in the amount of $300,000 and intended to perform the contract if awarded to them. (Senior Party Record at 281-82). Under the standard set in UMC, the fact that the mock-up was not rotationally molded is not enough to negate the effect of the other factors. *UMC*, 816 F.2d at 656 (subject matter offered for sale must have "fully anticipated the claimed invention or

would have rendered the claimed invention obvious by its addition to the prior art"). The level of commitment to this bid, in conjunction with the physical development as evidenced by the mock-up, indicates that Heil believed the invention would work and supports a finding that the invention was on sale within the meaning of section 102(b). *Id.*

VI. CONCLUSION

For the reasons stated in this memorandum, I will not disturb the Board's decision. Specifically, I find that (1) Heil did not reduce the hinge-handle container to practice until after the date of Snyder's constructive reduction to practice, (2) Heil failed to exercise due diligence in developing the invention from the time just prior to Snyder's date of conception until the date Smith filed his patent application, and (3) the invention is unpatentable to Heil as it was on-sale more than one year before Smith filed his patent application.

Dated December 6, 1991.

BY THE COURT

/s/ Warren K. Urbom
United States Senior District Judge

Final Hearing
August 23, 1988

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Patent Interference No. 101,524

Smith v. Snyder et al.

Plastic Refuse Container

Application of Fred T. Smith, filed July 25, 1985, Serial No. 759,646. Accorded benefit of Serial No. 421,573, filed September 22, 1982.

Patent granted to Larry L. Snyder and Richard Florer on May 29, 1984, Patent No. 4,450,976, filed February 22, 1982, Serial No. 350,874.

Michael, Puerner, Gemignani, Clemency, Riteris, Buse, Beard, Smith and Lowe for Smith. Oral argument by Paul R. Puerner.

Schuyler, Banner, Birch, McKie, Beckett, Hoscheit, Tate, Potenza, Partridge and Cantor. Oral argument by Alan I. Cantor.

Boler, Caroff and J. Smith, Examiners-in-Chief.

Caroff, Examiner-in-Chief.

This interference involves an application of the junior party, Smith, and a patent of the senior party, Snyder et al (Snyder). The Smith application is assigned to Heil Co. (Heil), and the Snyder patent is assigned to Snyder Industries, Inc. (SII).

The subject matter involved in this interference relates to a portable molded refuse container with a hinged lid wherein a rod performs a dual function as a hinge component and a handle. The subject matter in issue is more particularly defined by the following count, which is the only count involved in the interference[1]:

A portable molded container with a hinged lid comprising:

> a container body having a bottom and an upstanding sidewall joined to said bottom, said bottom and said sidewall defining a container interior and said sidewall having an upper edge defining an opening into said interior;
>
> a lid having a cover portion adapted to overlie said opening:
>
> at least two transversely spaced hinge means for pivotally interconnecting said lid and said body, each of said hinge means comprising a body hinge portion extending laterally from said body near the upper edge of said sidewall, and a lid hinge portion extending laterally from said lid adjacent said body hinge portion; and
>
> a hinge rod extending between said hinge means and pivotally coupling the body hinge por-

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[1] Following the convention adopted by senior party Snyder in its brief, the invention defined by the count will be referred to herein by using the shorthand expression "hinge-handle" container, design or construction.

> tion and the lid hinge portion of each of said hinge means, said hinge rod being rotatable with respect to each of said hinge portions and exposed in the region between said hinge means so that it can be grasped and function as a handle for manipulating the container.

The claims of the parties which correspond to this count are:

Smith: Claims 1-13

Snyder: Claims 1-15

Issues

The following issues were raised in the parties' briefs and, therefore, are the only issues before us for consideration[2]:

1. Whether Smith's alleged offer to sell 28,000 hinge-handle containers to the County of Sacramento more than one year before Smith's effective filing date renders Smith's involved claims unpatentable to him under 35 USC 102(b)/103.

2. Whether Snyder's alleged offers to sell hinge-handle containers to the County of Sacramento and to Municipal Equipment Sales and Leasing, Inc. more than one year before Smith's effective filing date renders Smith's involved claims unpatentable to him under 35 USC 102(b)/103.

3. Whether the description and drawing of Smith's hinge-handle container submitted with Smith's bid to the

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[2] Issues relating to the question of whether the involved Smith claims are patentable under 35 USC 102(b)/103 were originally raised in a preliminary motion for judgment filed by Snyder on June 5, 1986 (Paper No. 8), and a decision on the motion was deferred to final hearing (Paper No. 11).

County of Sacramento became publicly available more than one year prior to Smith's effective filing date and thereby operate together as a printed publication that renders Smith's involved claims unpatentable to him under 35 USC 102(b)/103.

4. Whether evidence adduced by Smith, the junior party, is sufficient to establish a date of invention prior to Snyder's filing date.

5. If Smith is found to have established a date of invention prior to Snyder's filing date, whether Snyder has adduced sufficient evidence to establish an even earlier date of invention.

Both parties took testimony, submitted exhibits, filed briefs and appeared, through counsel, at final hearing.[3] No issue of interference-in-fact has been raised in this proceeding.

I. The Question of Whether the Smith Bid to Sacramento Constitutes An "On-Sale" Bar to Smith under 35 USC 102(b)/103

Snyder, as the party asserting an "on-sale" bar, bears the ultimate burden of persuasion on the issue. However, contrary to statements made by Smith in his reply brief (JPRB-9), the appropriate standard of proof in the context of the present interference, where the patentability of claims in a patent application has been challenged, is proof by a preponderance of the evidence. *In re Caveney*, 761 F.2d 671, 226 USPQ 1 (Fed.Cir. 1985).

There is no question that the Smith bid to the County of Sacramento (SPX-UU), hereinafter the "Smith-Sacra-

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[3] The Smith testimony record, exhibits, brief and reply brief will hereinafter be respectively referred to as "JPR", "JPX", "JPB" and "JPRB" followed by an appropriate page or exhibit designation. The Snyder testimony, exhibits and brief will similarly be referred to as "SPR", "SPX" and "SPB".

mento bid", was submitted prior to the critical date of September 22, 1981 (SPR-250, 263) and related to hinge-handle containers (SPR 144-151, 268-69, 274-77). However, as recognized by Snyder, the bid, in order to constitute an "on-sale" bar, must also be shown to have been associated with the contemporaneous development of the subject invention significantly beyond the conception stage. *UMC Electronics Co. v. U.S.*, 816 F.2d 647, 2 USPQ2d 1465 (Fed.Cir. 1987). Snyder offers the following three alternative grounds for finding that all the requisite elements of an "on-sale" bar are present when the Smith-Sacramento bid is considered in conjunction with the prior construction, on or before May 20, 1981, of a so-called "mock-up" container (SPX-CC) at the behest of Heil management (JPR-9; SPR-174,245):

(1) In accordance with the rationale of the *UMC* case, supra, an actual reduction to practice of the subject invention is not an essential element of an "on-sale" bar and, therefore, Heil's commercial endeavor to sell hinge-handle containers coupled with the contemporaneous development of a "mock-up" are sufficient to bar Smith from obtaining a patent;

(2) Even if an actual reduction to practice were a prerequisite for an "on-sale" bar, the Smith-Sacramento bid functions as a statutory bar to Smith since the Smith submissions under 37 CFR 1.608(b) in effect constitute an admission that the so-called "mock-up" represented a reduction to practice of the subject invention;

(3) Even if an actual reduction to practice were a prerequisite for an "on-sale" bar, the Heil "mock-up" would satisfy that requirement.

We find the record less than persuasive regarding Snyder's contentions that the Heil "mock-up" constituted a complete reduction to practice of a hinge-handle container. Nevertheless, we find the "mock-up" adequate as evidence of a stage of development of the subject invention which

is sufficient to qualify the Smith-Sacramento bid as an operative "on-sale" bar to the patentability of Smith's involved claims in accordance with the rationale set forth in the *UMC* case.

As for the lack of a complete reduction to practice, we note, first of all, that there is a question as to whether the Smith "mock-up" meets the "molded" limitation of the count. In our view, this question has not been adequately addressed by either party. We are cognizant of the testimony which indicates that the lower half of the "mock-up" container body, and perhaps the lid, were of molded construction (SPR-151, 182, 234-35, 237-38). However, other portions of the "mock-up" evidently were not molded structures (SPR 94-95, 178-79, 237). Additionally, the contention that the "mock-up" was a reduction to practice is inconsistent with Snyder's argument (regarding Smith's case for priority) to the effect that Smith considered a reduction to practice to include the subsequent development of a successful rotational molding technique (SPB 34-36).

At any rate, it is our firm conviction that the record fails to establish that the Smith mock-up was sufficiently tested for utility under conditions of actual use to constitute a complete reduction to practice. In this regard, we note that the reduction to practice of a particular article of manufacture is generally not considered to be complete until that article is successfully tested to establish its utility. *Gordon v. Hubbard*, 347 F.2d 1001, 146 USPQ 303 (CCPA 1965). Clearly, the subject invention was designed to ultimately serve as a refuse container (JPR-7,9; SPR 178-179). While the "mock-up" evidently was maneuvered around by grasping its hinge rod-handle, and its lid was apparently opened and closed (SPR-98, 196, 200), there is no evidence that it was ever actually tested to determine whether it could be filled with refuse and subsequently inverted to empty the refuse out. Rough handling would no doubt be expected to occur during these conventional

operations. To establish a reduction to practice, it must be shown that the invention was tested for its intended purpose under conditions normally encountered in actual use, and expert opinion that the constructed item is "capable" of functioning as intended cannot be utilized to cover a deficiency in evidence. *Paine v. Inoue*, 195 USPQ 598 (Bd.Pat.Int. 1976). Here, not only do we have a lack of sufficient evidence of actual testing but we also have contradictory testimony as to whether the "mock-up" was even capable of functioning in a conventional manner as a refuse container (SPR 179-80, 199-200; JPR-13).

Further, we cannot find the "mock-up" to be an admitted reduction to practice of the invention in issue based upon the § 1.608(b) submissions of Smith since there is no provision in the rules for a reversion to the summary judgment stage of the proceedings at the behest of the patentee once that stage has been passed. Cf. *Walsh v. Sakai*, 167 USPQ 465 (Comm'r 1970). Additionally, it is noted that the affidavits submitted by Smith under § 1.608(b) do not even appear to have been introduced into evidence pursuant to 37 CFR 1.671(e).

In view of the foregoing, we conclude that the Smith "mock-up", while representing something less than a complete reduction to practice of the invention offered for sale, nevertheless serves as proof that development of the subject invention had proceeded beyond a mere conception at the time of the Smith-Sacramento bid. Testing of the hinge rod-handle on the mock-up demonstrated to the satisfaction of the inventor that that particular component would work as intended to perform a dual function. Other Heil personnel were convinced that they "could produce a good container" (SPR-320). Commitments made in the bid itself, i.e. bid bond, performance bond, seven-year warranty on refuse containers, specific delivery schedule and liquidated damages clause for late delivery (SPX-UU, page 41, 82-83), are objective manifestations of the confidence at Heil that the company would deliver on its offer if accepted.

Thus, we are satisfied that Snyder has established an "on-sale" bar against the patentability of Smith's involved claims by a preponderance of the evidence based upon commercial exploitation of the subject invention (as manifested by the Smith-Sacramento bid), at a stage of development of the invention beyond mere conception, more than one year before Smith's effective filing date. *UMC Electronics Co. v U.S.*, supra.

As for the argument by Smith that the bid for containers was made with little expectation that it would be accepted, we note that the testimony relied upon to support this argument (SPR-271, 284) does not establish that there was absolute certainty of a rejection. Instead, the witness (Warren) stated that he believed Heil "probably" would not be the successful bidder. Submission of the bid is objective evidence that Heil personnel entertained some expectation, however slight, of a sale. An offer to sell is sufficient to invoke the statutory bar whether the offer is ultimately accepted or not. *In re Caveney*, supra.

For the sake of completeness, we shall now proceed to address the other issues raised by Snyder under 35 USC 102(b) even though the involved claims of Smith have already been found, supra, to be unpatentable to him under the same section of the statute.

II. The Question of Whether Snyder's Alleged Offers of Sale Constitute an "On-Sale" Bar to Smith under 35 USC 102(b)/103

We approach this question in a manner very similar to that which we employed in connection with our previous discussion of the "on-sale" bar relating to the Smith-Sacramento bid. First, however, we must resolve the dispute as to whether the evidence adduced by Snyder supports a conclusion that the alleged offers of sale by Snyder were actually made prior to the critical date of September 22, 1981.

Snyder need only establish an offer of sale by a preponderance of the evidence, i.e. that the existence of the contested fact is more probable than its nonexistence. *In re Caveney*, supra; *Photis* v. *Lunkenheimer*, 225 USPQ 948 (Bd.Pat.Int. 1984). We are convinced that this burden has been satisfied. Snyder testified that the offers in question were mailed on September 10, 1981 and September 18, 1981, respectively, and were accompanied by a drawing (SPR 5-6). The testimony is supported by documentary evidence (SPX-N,O,P). In our opinion, the evidentiary materials proffered by Snyder constitute *prima facie* evidence of the fact that offers of sale were mailed on behalf of SII on or about the dates indicated and related to containers resembling the hinge-handle design of the count. Smith has presented no evidence to the contrary.

As noted previously, the state of development of an invention at the time of an offer of sale is critical to resolution of an "on-sale" issue, as is the commercial exploitation exemplified by the offer itself. Concerning the state of development of the subject invention at the time of the Snyder offers of sale, the senior party relies on its alleged July 20, 1981 reduction to practice, i.e., its so-called "mock-up" container (SPB 29-30; SPR-3,26,59).

As with the Smith "mock-up", we find that activities at SII relating to construction and testing of the Snyder "mock-up" represent something less than a complete reduction to practice of a hinge-handle container. Nevertheless, we find that the Snyder "mock-up" exemplifies a state of development which, when coupled with Snyder's offers of sale, establishes that the invention claimed by Smith was "on sale" within the meaning of 35 USC 102(b)/103.

As for the lack of a complete reduction to practice, we note that there is a question as to whether the Snyder "mock-up" meets the "molded" limitation of the count. Indeed, we find nothing in the record which indicates that

any significant portion of the mock-up was of molded construction, Snyder's arguments to the contrary notwithstanding. At any rate, in our view the record fails to establish that the Snyder mock-up was sufficiently tested under conditions normally encountered in actual use to constitute a complete reduction to practice. Clearly, the subject invention was designed to serve as a refuse container (SPR-3,26,59). While the Snyder "mock-up" was maneuvered around by use of its hinge rod-handle and its lid was opened and closed (SPR-60), there is no evidence that it was ever actually tested as a refuse container to determine whether it could be filled and emptied of refuse using anticipated or conventional handling procedures.

While representing something less than a complete reduction to practice, the Snyder "mock-up" nevertheless serves as proof that development of the subject invention had proceeded significantly beyond the conception stage at the time Snyder offered hinge-handle containers for sale. The mock-up container was constructed by Kennedy under the direction of co-inventor Florer and, for the most part, apparently embodied the hinge-handle design of the count (SPP 59-60; SPX-N). Testing of the hinge rod-handle on the mock-up demonstrated to the satisfaction of those involved that that particular component would operate as intended to perform the dual function of a hinge and a manipulating handle (SPR-26,60). Those involved were apparently convinced that the "mock-up" was capable of functioning as a refuse container and that a hinge-handle container could be readily manufactured on a commercial scale using a conventional rotational molding technique (SPR-4, 26-27, 60). Thus, in accordance with the policy considerations delineated in the *UMC* case, we are satisfied that Snyder's offe of sale prior to the critical date constitute an "on-sale" bar as to Smith's involved claims when the offers are viewed in conjunction with the state of development of the subject invention at SII at the time.

III. The Question of Whether the Smith-Sacramento Bid Papers Constitute a "Printed Publication" under 35 USC 102(b)/103

We agree with Smith that the description and drawing of a hinge-handle container which were submitted along with the Smith-Sacramento bid (SPX-UU, pages 3, 80, 87) have not been shown to operate together as a printed publication within the meaning of 35 USC 102(b).

As recognized by Snyder, public accessibility is the touchstone in determining whether a reference constitutes a "printed publication" bar under section 102(b) of the statute. *In re Hall*, 781 F.2d 897, 228 USPQ 453 (Fed.Cir. 1986). The only testimony relating to the issue of public accessibility was given by Warren, a Heil marketing manager. According to Warren, the bid in question "was opened" on September 10, 1981 and, "by law", when bids are opened "the bid amounts" are read "as bid in a public bid offering" (SPR 285-86). We find this testimony deficient since there is nothing to indicate that standard procedure or regulations required that the entire bid package, and not merely the "bid amount", be made available to the public when a bid is opened. Further, the "law" referred to by Warren has not been clearly identified, nor has it been introduced into evidence. In this regard, see 37 CFR 1.682. In other words, we find no indication in the record that the particular portions of the Smith-Sacramento bid package relating to hinge-handle container design were disseminated or otherwise accessible to the public in the twelve-day period between September 10, 1981, when the bid was opened, and September 22, 1981, the critical date.

For the foregoing reasons, we conclude that Snyder has failed to establish that the bid papers in issue constituted a printed "publication" within the meaning of the patent statute.

Although we have already determined that Smith is not entitled to a patent containing his claims corresponding to the count, we nevertheless shall proceed to resolve the issue of priority. *Kwon v. Perkins*, 6 USPQ2d 1747 (Bd.Pat.App.Int. 1988).

IV. Smith's Case for Priority

Smith, the junior party, has the burden of proving prior inventorship by a preponderance of the evidence. *Peeler v. Miller*, 535 F.2d 647, 190 USPQ 117 (CCPA 1976). To establish prior inventorship, Smith apparently relies on an interoffice memorandum (JPX C-3; JPR-4, paragraph 17) which is said to evidence an actual reduction to practice of the invention in issue by December 7, 1981 (JPB-5,6-7). Alternatively, assuming Smith was not the first to reduce the invention to practice while admittedly being the first to conceive (SPB-3), Smith seeks to establish prior inventorship by showing that he proceeded with reasonable diligence to reduce the invention to practice from a time just prior to conception by Snyder.

After carefully considering the entire record before us in light of the opposing arguments of counsel in the briefs and at final hearing, we find that we agree for the most part with the views expressed in Snyder's brief regarding a lack of legally sufficient evidence in Smith's record of either a prior reduction to practice or of the requisite diligence to establish prior inventorship.

First of all, as to the alleged December 7, 1981 reduction to practice by Smith, no evidence has been presented that the containers referred to in the aforementioned interoffice memorandum embodied all the elements of the count. Any device relied upon for an actual reduction to practice must satisfy all the limitations of the count. *Fredkin v. Irasek*, 397 F.2d 342, 158 USPQ 280 (CCPA), *cert. denied*, 393 U.S. 980, 159 USPQ 799 (1968).

Furthermore, the record is devoid of any evidence that the containers in question were ever actually tested as

refuse containers under conditions normally encountered in use. As previously discussed, we consider such testing essential to establish a reduction to practice of the invention in issue. *Paine v. Inoue*, supra.

Moreover, as pointed out by Snyder (SPB 34-36), Smith apparently considered that a reduction to practice would include successful production of a hinge-handle container by a rotational molding technique (SPR-99,104). This consideration is inconsistent with the allegation of a successful reduction to practice by December 7, 1981 since molding problems relating to buckling of containers (SPR-89, 90, 102-104) persisted well beyond that date (JPX C-4,C-5). Indeed, a solution to the buckling problem, involving use of expansion joints, was apparently not even proposed until February 19, 1982 (SPR-90, JPR-6; JPX C-7, C-9); and there is no indication in the record that this solution was embodied in a functional hinge-handle container prior to the senior party's filing date.

As for diligence, we must first determine Snyder's conception date. To establish a conception of the invention in issue by October 25, 1980, Snyder relies on drawings SPX-B, C and D together with the testimony of co-inventors Snyder and Florer. We find this evidence insufficient to establish conception by the date alleged since the inventors' testimony stands uncorroborated. *Reese v. Hurst*, 661 F.2d 1222, 211 USPQ 936 (CCPA 1981); *Mikus v. Wachtel*, 542 F.2d 1157, 191 USPQ 571 (CCPA 1976). However, Smith appears to admit that Snyder has proven conception at least by sometime in July 1981 (JPB-8), and there is ample evidence to substantiate a conception by no later than July 20, 1981 (SPR-57, 59-60; SPX-H,N). Accordingly, with regard to the question of Smith's diligence, the critical period which must be accounted for begins *just prior* to about July 20, 1981, Snyder's accepted conception date, and runs to September 22, 1982, Smith's effective filing date and the only date which we find that Smith can rely upon for reduction to practice. 35 USC 102(g).

In our opinion, the evidence proffered by Smith falls far short of that which is necessary to establish reasonable diligence throughout the critical period. The entire critical period must be accounted for. *Griffith v. Kanamaru*, 2 USPQ 2d 1361 (Fed.Cir. 1987). *Gould v. Schawlow*, 363 F.2d 908, 150 USPQ 634 (CCPA 1966). It is well settled that to satisfy the reasonable diligence requirement of 35 USC 102(g), "reasonably continuous activity" during the critical period must be shown which is directly related to actual or constructive reduction to practice of the invention in issue. *Burns v. Curtis*, 172 F.2d 588, 80 USPQ 587 (CCPA 1977), *cert. denied*, 439 U.S. 826, 200 USPQ 64 (1978). Gaps of no activity must be explained and legally sufficient justification of inactivity established. *In re Nelson*, 420 F.2d 1079, 164 USPQ 458 (CCPA 1970). General statements by the inventor to the effect that there were no weeks or months that he did not work on the involved invention is not enough to show diligence, absent supporting facts showing specifically what was done and when it was done. *Gould v. Schawlow*, supra.

As pointed out by Snyder (SPB 38-41), an analysis of Smith's case for diligence reveals several distinct gaps or lulls in proven activity during the critical period of concern here. Most notably, there is a first lull in proven activity of about 2 1/2 months duration right at the beginning of the critical period between the receipt by Heil of a quote on a prototype mold (May 28, 1981; SPX-PP) and the placement of an order for the mold (August 12, 1981; JPR-10). A 2 1/2-month aggregate of time devoid of any specific proven activity or excuse for inactivity is alone fatal to Smith's case for diligence. Additionally, there is an unexplained gap in activity between the making of an initial batch of prototype containers using the prototype mold (November 5, 1981; JPR-10) and the making of a so-called "successful container" using an improved mold (December 7, 1981; JPR-4; JPX C-3), a gap in activity of about one month. Moreover, there is very little evidence of any rel-

evant activity, or excuse for inactivity, to account for the balance of the critical period, i.e., from December 7, 1981 through September 22, 1982, an apparent lull in activity of about nine months duration.

In summary, we find the Smith record insufficient to establish either a reduction to practice of the invention in issue prior to Snyder's filing date or the requisite degree of diligence during the critical period of concern here.

V. Snyder's Case for Priority

Snyder is entitled to prevail on the issue of priority since we have found that Smith, the junior party, has not satisfied his burden of proving prior inventorship. However, for the sake of completeness we note that Snyder's own case for priority, which relies upon the Snyder "mock-up" for an actual reduction to practice, has been found to be unconvincing for reasons which have been set forth in section II above.

Judgment

For the foregoing reasons, judgment as to the subject matter of the count in issue is hereby awarded to Snyder et al, the senior party.

Accordingly, (1) Larry L. Snyder and Richard Florer are entitled to their patent containing claims 1-15 which correspond to the count; and (2) Fred J. Smith, the junior party, is not entitled to a patent containing his claims 1-13 corresponding to the count.

/s/ James R. Boler
James R. Boler
Examiner-in-Chief

/s/ Marc L. Caroff
Marc L. Caroff
Examiner-in-Chief

/s/ John D. Smith
John D. Smith
Examiner-in-Chief

BOARD OF PATENT APPEALS AND INTERFERENCES

SUPREME COURT OF THE UNITED STATES

No. A-40

Snyder Industries, Inc.,

Petitioner

v.

The Heil Company

ORDER

UPON CONSIDERATION of the application of counsel for the petitioner,

IT IS ORDERED that the time for filing a petition for a writ of certiorari in the above-entitled case, be and the same is hereby, extended to and including August 24, 1993.

/s/ William H. Rehnquist
Chief Justice of the United States

Dated this 13th
day of July, 1993.